

Lesson 4: Solve Multiplicative Comparison Problems with Large Numbers

Standards Alignments

Addressing 4.OA.A.1, 4.OA.A.2

Teacher-facing Learning Goals

- Represent and solve multiplicative comparison problems with larger numbers.

Student-facing Learning Goals

- Let's represent and solve multiplicative comparison problems with larger numbers.

Lesson Purpose

The purpose of this lesson is for students to extend their understanding of multiplicative comparison to situations that involve larger quantities and larger multipliers.

In previous lessons, students interpreted discrete diagrams in which each section represented one item and used them to solve multiplicative comparison problems. They also represented multiplicative comparison situations in which different parts of the problem were unknown.

In this lesson, students extend their understanding of multiplicative comparison, including ways to represent it, to include comparisons with larger amounts and multipliers.

In the warm-up, students notice that the discrete diagrams used in previous lessons become inefficient with larger numbers. Later, they interpret tape diagrams in which each section is labeled with a number to represent a quantity, rather than to represent one object. Students use these diagrams to determine the amounts being compared and the factor that relates the amounts.

Access for:

Students with Disabilities

- Action and Expression (Activity 1)

English Learners

- MLR8 (Activity 2)

Instructional Routines

Notice and Wonder (Warm-up)

Lesson Timeline

Warm-up	10 min
Activity 1	15 min
Activity 2	20 min
Lesson Synthesis	10 min
Cool-down	5 min

Teacher Reflection Question

In this lesson, students interpret and represent situations in which the larger amount is unknown, the smaller amount is unknown, and the multiplier is unknown. How did the structure of the tape diagram support students in identifying what was unknown?

Cool-down (to be completed at the end of the lesson)

 5 min

Represent Multiplicative Comparison

Standards Alignments

Addressing 4.OA.A.2

Student-facing Task Statement

Priya read some pages on Monday. Jada read 63 pages, which is 7 times as many pages as Priya read.

1. Write an equation to show the comparison. Use a symbol for the unknown.
2. How many pages did Priya read?

Student Responses

1. Sample response: $7 \times ? = 63$
2. Priya read 9 pages.